

1904.
—
QUEENSLAND.



REPORT OF THE COMMISSIONER OF PUBLIC HEALTH.

Presented to Parliament and Ordered to be Printed.

TO THE UNDER SECRETARY, HOME DEPARTMENT.

Department of Public Health, Queensland,
Brisbane, 25th August, 1904.

SIR,—I have the honour to submit the Report of my Department for the year ending 30th June, 1904.

INFECTIOUS DISEASES.

NOTIFICATION.

The following cases of infectious diseases throughout the State were reported to the Department :—

Cases.	1st July to 31st December, 1903.	1st January to 30th June, 1904.	Totals.
Bubonic Plague	2	29	31
Diphtheria	135	190	325
Phthisis ... ..	...	9	9
Membranous Croup	1	1	2
Erysipelas	44	33	77
Scarlet Fever	473	513	986
Typhoid Fever	331	446	777
Relapsing Fever ... ..	...	...	...
Puerperal Fever	9	11	20
Continued Fever	1	1	2
Deaths from Phthisis	56	61	117
Grand total ... ..	...	...	2,346

Distribution of cases within the Metropolitan Area for the twelve months ending 30th June, 1904, was as follows :—

Local Authority.	Typhoid Fever.	Scarlet Fever.	Puerperal Fever.	Diphtheria.	Erysipelas.	Phthisis.	Total.
Brisbane	147	46	3	47	10	48	301
South Brisbane	67	30	2	37	9	15	160
Ithaca	54	8	1	19	1	12	94
Toowong	35	1	...	11	2	5	54
Wynnum	6	26	...	1	...	...	33
Sandgate	3	5	...	2	...	...	10
Balmoral	4	...	...	3	2	...	9
Hamilton	11	4	...	9	...	3	27
Coorparoo	5	...	...	2	...	1	8
Indooroopilly ... ..	...	...	...	1	...	1	2
Enoggera ... ..	...	...	...	1	...	1	2
Kedron	4	2	...	5	...	1	12
Stephens	6	5	...	5	2	9	27
Windsor	24	6	1	15	...	6	52
Toombul	10	6	...	24	...	4	44
Taringa	5	1	...	1	3	6	16
Yeerongpilly ... ..	...	...	...	1	...	...	1
Sherwood ... ..	...	2	...	1	...	1	4
Belmont ... ..	...	...	...	...	...	...	0
	381	142	7	185	29	113	857

DISINFECTION.

Disinfection of infected premises in the Metropolitan Area is carried out by the Health Department sanitary staff, a small fee merely covering cost of material being charged to the Local Authorities concerned.

In connection with the 857 cases reported above, some 712 premises were disinfected, and 87 statutory notices requiring abatement of sanitary defects forwarded to the Local Authorities.

In other parts of the State the Local Authorities carry out the necessary disinfection of premises under the superintendence and to the satisfaction of their medical officers of health.

Since the recrudescence of plague in February last, 74 vessels have been disinfected at various ports of this State in conformity with the Plague Regulations. A sum of £44 17s. has been received in fees for this work. [A disinfecting plant of the most approved type for the fumigation of cargo *in situ*, without damage to even perishable articles, has been tried with success in various parts of the world where plague has been prevalent. The installation of such a plant for the port of Brisbane is highly desirable. The working expenses could be met by charges which shipping agents have intimated they would gladly pay for the advantages offered.]

TYPHOID FEVER.

Seven hundred and seventy-seven cases of typhoid fever were notified in the State during the year. The incidence was heaviest in the Brisbane Municipal Area, 147 cases having occurred; of these 74 cases were notified by medical practitioners, 73 cases ascertained from hospital records. From Toowoomba, 55 cases; Charters Towers, 36; Ipswich, 79; and Townsville, 42 cases were notified.

From a review of the information supplied by the medical officers of health to the various Local Authorities, it seems highly probable that the majority of the cases were caused by fly-infection, or by infected dust.

A pamphlet containing suggestions and instructions to householders and others, urging the necessity for keeping all closet seats covered and the free use of some deodorant, was issued by me early in the year.

The tumbledown, dilapidated, wooden erections doing duty as earth-closets are not only an eyesore but a distinct menace to health, both rats and flies having easy access to the contents of the pans. If considerations of ordinary decency and cleanliness do not prompt owners of properties to erect properly constructed outbuildings, the Local Authorities should take action under their by-laws compelling such construction.

Thirty-five cases of typhoid occurred in the Area of Toowong, and 54 in the Area of Ithaca. A careful inspection of the Toowong district revealed an entire absence of drainage facilities; the household drainage being allowed to stagnate upon premises, while the sewage from the surrounding high ground found its way into a Chinaman's garden, where it was utilised for watering vegetables.

Dr. O'Brien, late Health Officer to the Department of Public Health, reports that in a large majority of the cases householders purchased vegetables grown at this garden.

The Local Authority was called upon to abate this nuisance, and Regulations (in Chinese and English) were drafted by the Department to prohibit the watering of vegetables with urine and sewage.

SCARLET FEVER.

Nine hundred and eighty-six cases were reported; 142 cases were notified within the Metropolitan Area, as against 237 cases last year.

Ninety cases were treated at Wattlebrac Infectious Diseases Hospital. An outbreak at Mount Morgan lasted for several months, and 190 cases were notified.

The Department supplied tents and bedding to the Mount Morgan Municipal Council, and the local medical officer of health (Dr. Richards) is to be complimented on his management of the epidemic.

DIPHTHERIA.

Three hundred and twenty-five cases of diphtheria occurred throughout the State. It has been observed in many parts of the world that where scarlet fever is unusually prevalent the number of diphtheria cases are also increased.

1st January to 30th June, 1903.					1st January to 30th June, 1904.				
Scarlet fever	...	...	...	160	Scarlet fever	...	...	...	513
Diphtheria	...	...	...	171	Diphtheria	...	...	...	190

Diphtheria is a disease of considerable moment, the commonest mode of infection being the carrying about of potentially virulent diphtheria bacilli in the throats of immediate contacts and convalescents who may be apparently in normal health.

At the Children's Hospital, Brisbane, as far as practicable, no patient is released until one or more swabbings from the throat has given a "negative" result. This practice could be extended with beneficial results by medical practitioners.

PLAGUE.

The last case of plague in Brisbane in 1903 was on 8th September, the last infected rat being discovered on 28th September. The first infected rat of 1904 was found on 8th January, and the first case of human plague a month later.

Thus, after an interval of freedom of 151 days, plague made its reappearance in Brisbane, the first case in man being reported on 9th February of this year.



The outbreak—the fifth in Queensland—was marked by 29 cases with 9 deaths.

	Cases.	Deaths.
Brisbane	24	6
Ipswich	1	1
Cairns	2	1
Maryborough	2	1

(To 30th June, 1904.)

Of the 9 fatal cases, 3 were discovered by *post-mortem* examination; 2 were Chinamen, 1 a kanaka, and 1 an aboriginal.

The gross mortality was 31 per cent.:—Europeans, 26·92 per cent.; coloured races, 100 per cent.

The epizootic incidence of plague in rats, as in former years, preceded and accompanied the cases of plague in man.

The whole subject of plague in Queensland is being dealt with in a separate report, and the briefest comment is here recorded.

The progress of the disease in man and the incidence of the disorder among the rats within the Metropolitan Area for the years 1902, 1903, and 1904 are shown in the following comparative table:—

Month.					Man.			Rats.		
					1902.	1903.	1904.	1902.	1903.	1904.
January	...	...	...	...	1	...	...	3	1	21
February	...	...	...	...	14	5	7	6	8	3
March	...	...	...	...	20	4	...	7	32	25
April	...	...	...	...	28	6	7	53	20	25
May	...	...	...	...	18	4	12	16	15	90
June	...	...	...	...	...	...	3	12	8	150
July	...	...	...	...	...	...	...	8	...	...
August	...	...	...	...	1	1	...	1	...	...
September	...	...	...	...	...	1	...	4	7	...
October	...	...	...	...	...	...	...	...	...	...
November	...	...	...	...	...	...	...	1	...	...
December	...	...	...	...	...	...	...	...	...	...
					82	21	29	102	91	314

The number of rats collected and examined for the last three years ended on 30th June, 1904, shows the increased work done by the Department in the work of destruction and examination:—

Year.						Number of Rats Destroyed.	Number of Rats Examined.	Number of Rats Infected.	Percentage.
1902	...	...	...	...	...	...	1,315	101	7·8
1903	...	...	...	...	...	17,600	9,530	91	·95
1904	...	...	...	...	...	46,056	21,785	317	1·45

Included in the above figures for 1904 are 3,276 mice, which were examined at the bacteriological institute of the Department of Public Health. Only 3 of these were found to be plague-infected.

The following returns show the number of rats and mice destroyed during the year ending 30th June, 1904, in the coastal towns of the State:—

							Number of Rats.		Number Infected.
Gladstone	...	...	...	...	...	...	689	...	...
Townsville	...	...	...	...	...	...	7,518	...	28
Cairns	...	...	...	...	...	...	1,067	...	...
Rockhampton	...	...	...	...	...	...	4,785	...	...
Bundaberg	...	...	...	...	...	...	105	...	...
Maryborough	...	...	...	...	...	...	439	...	...
Ipswich	...	...	...	...	...	...	48	...	2
Total	...	...	...	...	...	...	14,651	...	30

The systematic daily bacteriological examination of the carcasses of rats killed by the rat-destroying gang of the Department, and the information derived therefrom, proves the close connection which existed between plague in rat and plague in man in various localities of the Metropolitan Area.

The number of cases of plague occurring in many parts of the Area was found to depend very largely upon the insanitary conditions of the premises acting as an attraction to or affording harbourage for rats generally, and especially was this the case in produce and grain stores, butchers' shops, and general stores.

In a report by the Health Officer to the Department (Dr. Baxter-Tyrie), evidence is adduced to show that, in the particular localities where the produce business is carried on, the incidence of plague both in man and in rat was heaviest.

In the 30 stores containing produce and grain which were cleansed and disinfected by the Department, 541 dead rats, 951 live rats, 305 dead mice, and 607 live mice were found.

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1904

Of the 1,492 rats caught, 109, or 7.30 per cent., were found to be plague-infected; of the 912 mice, 2, or 0.22 per cent., were plague-infected.

Of the 24 persons who contracted plague within the Metropolitan Area, 9 were directly employed in the produce business, while 3 were engaged in stables to which fodder was supplied from the "infected area."

As a result of the cleansing operations carried out by the Department at the produce stores, some 181 loads of rubbish and other material were removed and destroyed by fire.

In view of the probability of contamination of produce bags by the secretions and excretions of rats, a system of disinfection of these bags was carried out; 61,600 bags were disinfected by the Reck apparatus at the Wattlebrae Infectious Diseases Hospital.

A special report on the Brisbane produce stores has been prepared by the Health Officer to the Department (Dr. Baxter-Tyrie).

The incidence of plague in man and rats in connection with the produce, grain, bag and bale stores in the metropolis was sufficient to justify the cleansing operations undertaken by the Department. A systematic and careful inspection of the premises in question revealed the fact that a large number were quite unfit for the purposes of produce stores, by reason of their dilapidated condition or structural defects.

Any makeshift or dilapidated structure—*e.g.*, abandoned 'bus stables, blacksmiths' shops, &c.—has, in many cases, been thought good enough to store produce in.

In several cases new produce stores have been erected and the old buildings pulled down or abandoned, while many have been put into a proper condition by the construction of concrete floors, &c.

Notices have been served on the Local Authorities to compel owners of these premises to provide rat-impervious floors, and to take other measures having for their direct object the prevention of access or harbourage of rats.

The nature of the business, however, carried on in produce stores and butchers' shops must of necessity afford attraction for rats, and the obligation is very great, therefore, on the occupiers of such premises to take those precautions which experience in other cities where plague has occurred proves to have been effectual against the spread of the disease.

All the fodder, grain, &c., stored in the above premises were handled and shifted, the rats and mice destroyed, and their haunts systematically broken up in each produce store throughout the metropolis. The true measures of defence, then, are improvement in the character of all buildings, stores, granaries, butchers' shops, and such-like places which are peculiarly attractive to rats; the systematic destruction of rats, and the elimination of insanitary conditions contributing to their harbourage.

As pointed out in previous reports, the systematic and steady perseverance in the everyday sanitary work of our Local Authorities is the first and most important measure to be considered.

The maintenance of an efficient sanitary inspecting staff and the organisation of a house-to-house inspection of areas under the jurisdiction of the Local Authorities are essential if measures for the suppression of plague are to be efficient.

The diagnosis, treatment, and segregation of patients, the isolation and disinfection of patients' residences and places of occupation, the treatment of contacts, the destruction of rats, and other measures directly related to the prevention of the disease remain in the hands of the Department of Public Health; but other measures of prevention, such as general sanitation, house-to-house inspection, the abatement of nuisances, the remedying of sanitary defects, and the prompt and effectual removal of refuse of all kinds from premises are still, and rightly, the duty of the Local Authority.

The apathy of many Local Authorities can only be directly surmounted and defeated by the exercise of the drastic sections provided in the Health Act.

This apathy is due, no doubt, in a great measure to the chronic state of impecuniosity from which all local governing bodies throughout the State are at present suffering, combined with the more or less laudable desire to carry out the administration of their areas on the strictest economical lines. But while recognising this condition of affairs and sympathising with the popular idea of retrenchment at this stage of our local and State affairs, we must also realise that the health interest of large towns "cannot be sustained upon the financial basis which was ample for their support twenty years ago."

The indifference of a certain section of the public and the active opposition on the part of some members of our local governing bodies, as to the existence of plague in Brisbane, has justified that vigorous and impartial action which the Department has found it necessary to demonstrate from time to time in the enforcement of cleansing orders.

Plague surpasses all other infectious disease in danger to the individual, and, although the cases have been all sporadic since the first visitation four years ago, the restrictions imposed upon commerce by the health departments of other States are so disastrously expensive, that it might well be supposed the officers of the Health Department would not lack the encouragement and support of the Local Authorities in their endeavours to "stamp out" the disease within this State.

The increase of public and private hygiene must play an essential part in the disappearance of this disease.

The clinical and bacteriological evidence of plague is too well known among the medical profession to require proofs at this time. The man who denies the existence of plague is not entitled to be called a sceptic: he is simply ignorant, and it would be a hopeless task to attempt to enlighten him.

As in the epidemic of 1903, no case of plague was accepted except upon corroborative clinical and bacteriological evidence as well as inoculation experiments of a convincing description.

Some 50 cases of illness reported to me by medical practitioners as suspicious of "plague" during the recent epidemic were "negatived" after investigation, and in every instance the lapse of time confirmed the diagnosis made by the officers of the Health Department.

A special staff of 20 men was employed by the Department during the last twelve months in rat-destruction and cleansing operations.

Forty-six thousand and fifty-six rats and mice were destroyed and 21,785 examined at the Bacteriological Institute; of the latter, 317 rats and 3 mice were found infected. One thousand four hundred and fifty-three complaints by householders of "rats on premises" were attended to, and 70 places cleansed and disinfected.

Over 600 gallons of disinfectant and 346 lb. of rat-poison were manufactured and distributed to Local Authorities, householders, and others.

A sum of £416 was spent in capitation fees by the Government during the months of February-July of this year.

TUBERCULOSIS.

Pulmonary tuberculosis has been added to the list of notifiable infectious diseases within the meaning of the Health Act. Heretofore only deaths from phthisis have been notified. The spread of consumption can be largely prevented. The compulsory notification of all cases of pulmonary tuberculosis is now to be carried out with the view of laying stress on the necessity of destroying the expectoration of patients and disinfecting rooms lately occupied. It is the wish of the Department to interfere between the patient and his medical attendant as little as possible. Where the medical attendant is willing to instruct his patient as to the precautionary measures necessary, he is requested to inform the Commissioner, who will then forward printed instructions to the medical man for distribution.

The disinfection of the patient's room will be undertaken by the officers of the Department within the Metropolitan Area. All specimens of sputum from patients are examined by and reported upon by the Government Bacteriologist free of charge, if forwarded to the latter by any medical practitioner in the State.

ANCHYLOSTOMIASIS.

Dr. R. A. O'Brien, late Health Officer to the Department, furnished in January last an able and extensive report on this disease in Queensland. From his report it appears that the disease is found chiefly in the Cairns-Townsville district, at scattered places in the coast district between Brisbane and Maryborough, and to some extent at the extreme south-eastern end of the State.

Dr. O'Brien is of the opinion that the disease is not increasing rapidly, but slowly spreading and infecting new areas. He suggests that a statement be furnished to the public Press for publication in the above districts, urging all persons suffering from marked pallor, weakness, &c., to obtain medical advice, and thus lead to an increase in our knowledge of the prevalence and distribution of this disease.

Some scheme could then be devised—*e.g.*, proclaiming anchylostomiasis an "infectious disease" within certain areas, and providing by regulation for the isolation from such infected areas of all persons suffering from this disease until treatment had freed them from the parasite.

LEPROSY.

The Home Department continues to administrate the Leprosy Act, the Central Board of Health advising the Minister with regard to the detention of persons reported by medical officers.

On the 30th June, 1904, 12 persons remained under treatment at the Stradbroke Island Lazaret. Five patients were admitted during the year—4 were whites, and 1 an aboriginal.

A complete statement of the sex, birthplace, occupation, age at and date of admission, former residence, clinical notes, &c., of persons in Queensland admitted to the lazarets under warrant during the last ten years has been prepared. This statement was forwarded to Dr. Ashburton Thompson, President of the Department of Public Health for New South Wales, who kindly tabulated the details in his report on "Leprosy in Australia" to the Berlin International Congress on Leprosy this year.

INFECTIOUS DISEASES HOSPITAL.

An Order in Council abolishing the Metropolitan Joint Hospital Board was issued on 2nd March, 1904.

The long-vexed question of the "Metropolitan Joint Board for the Prevention of Epidemic Diseases" has been finally settled, and under section 117 (iii.) of "*The Health Act of 1900*" an agreement has been come to between the Local Authorities of the metropolis and the management of the Brisbane General Hospital for the latter body to receive and treat all persons at the Wattlebrae Infectious Diseases Hospital.

MARITIME QUARANTINE.

As Queensland must be regarded as the "gateway" for vessels arriving from the East and other places where endemic smallpox exists, the State has been singularly fortunate in its freedom from exotic disease, and a tribute of praise is due to the vigilance and careful watch maintained by the health officers at Thursday Island and our Northern ports.

Only one case of smallpox was reported during the year. The patient was a woman on board the s.s. "Empire" from China, who joined the vessel at Manila. The patient, together with her baby and on contact in the case, was quarantined for the usual period at Magnetic Island Quarantine Station, Townsville.

No further cases developed.

A conference of the heads of the Departments of Public Health of the several States of the Commonwealth met at Melbourne on the 22nd July, 1904, at the request of the Federal Prime Minister, for the

purpose of submitting to the Commonwealth Government suggestions as to the provisions to be introduced in a Quarantine Bill, and the taking over of the administration of the quarantine laws from the several States.

I had the honour to attend the conference as the delegate of Queensland, and to submit copies of the report of the conference to the Honourable the Premier and to the Honourable the Home Secretary respectively.

FOOD.

In my last annual report I dwelt at some length upon the duties of the Local Authorities under the Health Act with regard to inspection and examination of foodstuffs exposed for sale within their areas. I regret to state that Part VI. of the Act, regulating the sale and inspection of food, is still a dead letter on the part of the Local Authorities throughout the State.

A considerable quantity, comprising some 47 tons, of various foodstuffs was seized and condemned by the officers of the Department of Public Health during the past year.

The list of prosecutions under the Health Act included 5 cases for the adulteration of wine, 1 cider, 1 whisky, 4 ginger-wine, 11 cases for the adulteration of soft drinks, 2 for the adulteration of olive oil, and 6 cases of light-weight bread. The fines and costs amounted to the sum of £312 3s. 1d.

Samples of wine, rum, whisky, cider, water, milk, jam, cream of tartar, tea, and confectionery were examined by Mr. J. Brownlie Henderson, the State Analyst. The majority of the samples of wine were found to be "sugar, water, and artificial colouring."

One sample of whisky contained 5.4 per cent. of added water, and a fine of £5 6s. 6d. was inflicted by the magistrate.

One sample of wine and one sample of cider were "entirely fictitious," and fines of £15 17s. were imposed in each case.

DAIRIES.

As pointed out in my last annual report, the present staff of dairy inspectors is too small to permit of systematic inspection throughout the State. The proposed Dairy Bill will, no doubt, minimise the difficulty hitherto experienced with regard to the matter of registration.

For the year ending 30th June, 1904, 2,999 dairies have been inspected.

The sanitary condition of the majority of these dairies can only be improved by legal provisions, which at the present time are non-existent.

Cleanliness is the keynote for the production of pure milk and milk products.

The health of the cows has been good, and 31,144 cows have been inspected.

BACTERIOLOGICAL INSTITUTE.

The sum of £59 16s. 6d. has been received during the year in examination fees for "specimens" forwarded by medical practitioners and tuberculin and pleuro virus supplied by the Institute to various persons.

All specimens of sputa examined for the tubercle bacillus is now undertaken by the officers of the Institute free of charge, as well as "specimens" of plague, leprosy, and cholera cases.

During the past year 16,169 specimens were examined and reported upon, as compared with 1,506 specimens in 1900—the year of the inauguration of this particular work of the Department. Of the 316 specimens of sputa examined for tubercle bacilli, 135 were positive.

The medical superintendents of both the Dunwich and Dalby Sanatoriums forwarded a large number of specimens for examination. By this means information may be derived as to the progress or otherwise each patient is making in the open-air treatment carried out at the abovenamed institutions.

Eight hundred and five specimens of blood submitted for Widal's Test for Typhoid were examined; of these 399 were positive, and 406 gave negative reaction.

During the year specimens of lymph, blood, pus, and sputum from 64 patients suspected to be suffering from plague were submitted, and in 20 cases the *B. pestis* were detected. In addition to the bacterioscopic examination, culture (serum) media and a guinea-pig inoculation were carried out in every case.

DIPHTHERIA.

For the convenience of the various hospitals and private practitioners, the Institute, on my request, supplied a sterilised cotton-wool plug on a plated wire, enclosed in a plugged test-tube, free of charge.

Twenty-six cases of suspected diphtheria were examined, with the result that in only 8 cases were the Klebs-Löffler bacilli detected.

GENERAL.

Out of 19 specimens from cases of suspected leprosy 10 were found to contain the characteristic bacillus lepræ.

In all the "positive" cases the specimens of plague, leprosy, &c., are kept as a record and for future reference.

Mr. Pound, the Government Bacteriologist, states in his annual report that, although there was a demand for pleuro lymph sufficient to inoculate nearly 50,000 head of cattle, very considerable difficulty was experienced in obtaining cases of pleuro-pneumonia; consequently only sufficient virus was procured to inoculate 16,700 head of cattle, which was distributed among the applicants in due course.

The officers of the Department of Agriculture and a number of stock-owners forwarded specimens of bovine blood to be examined for presence of the piriplasma of tick fever, the object being to ascertain whether or not such blood is suitable for preventive inoculation purposes.

The museum collection has been added to by numerous interesting specimens.

ADMINISTRATION.

I have received much support and sound advice from the members of my Board, the Central Board of Health, who at all times were ready to accept their share of the labours and responsibilities of the Department.

Dr. Baxter-Tyrie was appointed to the position of Health Officer to the Department of Public Health, and Dr. F. Woolrabe as Assistant Health Officer and Health Officer to the Port of Brisbane.

ANNUAL REPORTS OF LOCAL AUTHORITIES.

An abstract of reports made by the Local Authorities has been prepared, but, owing to its voluminous proportions, it is not attached as an appendix to this Report.

A schedule form to be filled in by each Local Authority contained the following information:— Estimated population of area, number of infectious diseases notified, facilities for providing isolation, prevention of infectious disease, number of premises disinfected, premises inspected, demolitions carried out, nuisances abated, sanitary service, drainage and sewerage, lodging-houses, food supplies, number of samples examined, number of prosecutions, infant life protection, &c.

I have, &c.,

B. BURNETT HAM, M.D., D.P.H. (Camb.),

Commissioner of Public Health.

APPENDIX A.

Department of Public Health, Queensland,
Brisbane, 1st August, 1904.

SIR,—I have the honour herewith to submit my Report for the year ending 30th June, 1904.

Notwithstanding the inability of this office to do much of the work that is urgently needed, by reason of economic administration, much useful work has been done during the fiscal year.

At the commencement of the year I had a staff of five assistant inspectors; two have obtained employment elsewhere, and one died while on his way to Townsville to carry out the work of plague-prevention in that city.

METROPOLITAN AREA.

Within the Metropolitan Area 1,295 visits of inspection were made and, in most cases, repeated, and detailed inspections made of the plague-infected area in conjunction with the officers of the Brisbane Municipal Council. The sanitary condition of the city and suburbs continues to improve, though much city and suburban properties are in need of proper footpaths and street works; some of these are of such an urgent nature that I beg to call special attention to these needs, especially where domestic drainage is discharged into unformed water-tables and natural storm-water channels.

INTIMATION OF NUISANCE NOTICES.

Three hundred and forty-one intimation of nuisance notices were sent to the various Local Authorities calling their attention to nuisances requiring abatement within their areas.

The following is a summary of the nuisances complained of:—

- 250 Absence of drains, untrapped, and otherwise defective drainage.
- 45 Overflows of rain-water tanks connected direct with the sewers or drainage system.
- 39 Kitchen sinks, baths, &c., untrapped, and connected direct with the drains.
- 38 Dirty yards.
- 25 Accumulations of rubbish, &c., on vacant allotments and public rights-of-way.
- 25 The absence of closet accommodation, or closets in a filthy and insanitary state.
- 22 Stables in an insanitary condition.
- 20 Houses in a filthy or ruinous condition.
- 15 Untrapped urinals, or otherwise defective, discharging on to roofs, &c.
- 15 Cellars in an insanitary condition.
- 7 Want of rubbish bins, or neglecting to remove rubbish.
- 1 Public convenience in an insanitary condition.
- 1 Unsuitable disposal of trade refuse and carcasses of dead animals.

COMPLAINTS.

Numerous complaints, in writing, have been received during the year and attended to. All the butchers' shops within a 12-miles' radius of Brisbane were inspected; the condition of the pickling tubs, the material of which their brine-pumps and injecting needles were made noted, as well as the general hygienic circumstances of the shops and surroundings. In the majority of cases the yards and stables were found to be in a dirty and neglected condition.

FOOD INSPECTION.

I have been unable to devote the attention necessary to this important branch of public health, but, taking into consideration the means at my disposal, good work has been accomplished in this direction. The wharves and markets where much produce is handled are regularly inspected, and continue to be kept in a

most satisfactory condition. A considerable quantity of foodstuffs has been seized at the wharves, public auction-rooms, and elsewhere during the year, and condemned as unfit for the food of man. The seizures for the past twelve months comprise:—

								Tons	cwt.	qr.	lb.
211	Bags of potatoes	...	...	...	...	...	...	25	16	0	0
56	Crates of bananas	...	...	...	...	...	...	20	0	0	0
51	Boxes dried codfish	...	...	...	...	...	...	0	13	2	8
10	Boxes dried apples	...	...	...	...	...	...	0	5	0	0
39	Cabbages	...	...	...	...	...	...	0	1	1	0
4	Bags onions	...	...	...	...	...	...	0	5	1	12
4	Bottles potted chicken	...	...	...	...	...	...	0	0	0	0
6	Bottles anchovies	...	...	...	...	...	...	0	0	0	0
1	Box dates	...	...	...	...	...	...	0	0	2	4
1	Bag sugar	...	...	...	...	...	...	0	0	2	14
1	Case bacon	...	...	...	...	...	...	0	3	0	0
								47	5	1	10

SANITARY DISINFECTION AND INFECTIOUS DISEASE.

A continuous outbreak of typhoid fever, lasting several months, occurred within the city and suburbs in the early part of the year. Special inspections were undertaken in company with Dr. O'Brien, Health Officer, in order, if possible, to locate the foci of infection. At some of the better-class suburban residences where fever broke out with recurring frequency—in some cases with a fatal termination—no drainage facilities were provided, all household drainage being simply allowed to stagnate in the yards.

With the introduction of drains to these premises at the instigation of the Commissioner of Public Health, the fever has entirely disappeared. Another centre of infection was discovered in a Chinaman's garden, where all the vegetables grown therein were watered with crude sewage. Cabbages, lettuces, and all kinds of vegetables were allowed to soak in pools of sewage, often over night, in order to keep them fresh, then carted to the city and suburbs to be sold wholesale and retail. The danger arising from this practice is at once apparent when the vegetables are partaken of in the form of salads, especially when drainage from houses containing enteric fever patients is discharged into the open sewer traversing the gardens in question.

In a large number of households in the districts where typhoid fever occurred, it was ascertained by the Medical Officer (Dr. R. A. O'Brien) to the Department that the vegetables were purchased from this garden.

Typhoid fever was also prevalent amongst scholars attending several of the State schools in Brisbane, and the Commissioner of Public Health ordered an investigation into the sanitary circumstances of the schools in question and their immediate neighbourhoods. Samples of water were taken from the various rain-water tanks and submitted to Mr. C. J. Pound, Government Bacteriologist, for examination and report. It was found that the water in several of these tanks was in a highly contaminated condition, containing large numbers of the bacilli *Coli communis*. Steps were at once taken to thoroughly cleanse and fumigate the tanks, the water in some of which actually stunk. I would beg to bring under your observation the common practice of fixing rain-water tanks immediately beneath the verandas of schools, in some instances up to within 3½ inches of the flooring joists, where it is not only impossible to cleanse them without first removing the tanks from their stands, but the liability of contaminating the water by dirt and mud carried up by the children's feet is greatly increased.

Eight hundred and fifty-seven cases of infectious disease have been reported within the Metropolitan Area during the year; 712 premises have been disinfected, including the bedding and personal effects of the patients. Sanitary defects at the infected premises have also been noted, and 89 statutory notices forwarded to the Local Authorities calling for abatement.

BUBONIC PLAGUE.

The outbreak of plague increased the work of the Department to a considerable extent.

The Commissioner of Public Health in February last held a conference with his Worship the Mayor, Town Clerk, and members of the Brisbane Municipal Council within whose area a number of cases had occurred in connection with the produce stores. It was decided to declare an "infected area," and a special cleansing crusade was entered upon with a view of confining the disease to as small a compass as possible. With this end in view, all produce stores within the proscribed area as well as every store within a three-mile radius of the General Post Office was thoroughly searched for rats, their burrows dug out, the premises cleansed and disinfected by the departmental gang, and defects noted and reported to the Local Authorities.

It was found on inspection that a large number of existing produce, bag and bale stores were quite unfit for the purposes to which they were put, by reason of their dilapidated condition or structural defects. Three hundred and thirteen rats were found in these stores and other premises within the Metropolitan Area; 186 loads of rubbish were removed, and either destroyed by fire or buried after disinfection.

Some 61,600 bags and produce bales were collected from the various produce merchants in Brisbane and suburbs, and subjected to a thorough disinfection, by means of live steam, in the Reck disinfecting apparatus at Wattlebrae Hospital.

RAT-DESTRUCTION.

The gang continued active operations throughout the year, and destroyed 46,056 rats and mice; 21,785 of these were sent for examination, of which 317 rats and 3 mice were found to be infected; 860 rats and 1,572 mice were destroyed in the various produce stores during the special crusade which ended about the 30th June; of these 109 rats and 2 mice were infected.

Besides baiting, trapping, and digging out burrows, over 600 gallons of miscible carbolic was manufactured for disinfecting purposes, and a large portion supplied to the various Government Departments, Local Authorities, &c., throughout the State.

The following work was accomplished by the departmental gang:—

Complaints attended to	...	...	...	...	...	...	1,453
Places cleansed on account of plague	...	...	...	...	...	...	70
Places cleansed where infected rats were found	...	...	...	...	...	...	145
Places cleansed adjoining infected premises	...	...	...	...	...	...	255
Premises apart from "infected" places for rat-destruction	...	...	...	...	...	...	320
Slaughter-yards, piggeries, &c.	...	...	...	...	...	...	35
Business premises, stores, &c.	...	...	...	...	...	...	100

SHIPPING REGULATIONS.

The shipping regulations were in abeyance for a period of five months, but were reintroduced early in February of this year. Forty berthing certificates have been issued to oversea vessels, and 296 to intercolonial vessels.

In the month of June the Commissioner of Public Health having deemed it necessary in the interests of public safety to enforce the fumigation clauses of these Regulations, 7 oversea and 21 interstate vessels were fumigated at the Port of Brisbane.

INSANITARY SUBURBS.

Within the Metropolitan Area at the present time only two Local Authorities have compulsory rubbish removal systems. Any rubbish removal systems that may be in vogue are purely optional. The accumulated rubbish of years may be seen in odd corners, back of fences, yards of houses, and on vacant allotments in many suburbs around Brisbane.

OTHER PARTS OF THE STATE.

In several of the areas sanitary surveys have been undertaken at the request of the various Local Authorities, and altogether 3,593 visits of inspection have been made in places outside the Metropolitan Area.

Nightsoil and rubbish removal systems have been initiated in different places. Depôts unsuited for the disintegration of nightsoil and garbage have also been condemned, and others better adapted for the purpose selected in their stead.

Inspections of the following places were made at your request:—

SHIRE OF PURGA.

Enteric fever of a very virulent type was raging about the month of November in Blackstone and the adjoining colliery areas. I accompanied Dr. O'Brien, the departmental Health Officer, on a visit of inspection to this district, where it was found that the sanitary arrangements were of a very primitive description.

As the result of this inspection a sanitary service has been inaugurated by your orders. A considerable amount of opposition has been encountered by the sanitary contractor in the performance of his duty, and I understand that the Shire Council wish to discontinue the sanitary service in the township of Dinmore, Newchum, and St. Hellens. I would suggest that measures be taken to prevent this retrograde movement.

SHIRE OF BUNDANBA.

This shire is contiguous with that of Purga. Fever was also prevalent in Newtown and Silkstone at the time of the epidemic in the adjoining village of Blackstone. The sanitary circumstances of these districts also warranted the introduction of more modern methods for dealing with waste matter, and, as the result of our inquiries, an order was issued calling upon the Council to abolish cesspits, and also to discontinue the burial of nightsoil in small allotments within thickly settled portions of this part of the shire. The Council have prepared a scheme for the introduction of a sanitary service which they propose to introduce in the beginning of the year.

SHIRE OF BRASSALL.

The boundaries of this shire join that of the town of Ipswich, and adjacent to the Government Railway Workshops the shire is comparatively thickly settled. Liverpool, Raymond's Hill, and Horne Estate are without any proper system for dealing with nightsoil and garbage. As the probabilities are that this suburb of Ipswich will, in the near future, become more densely populated, it is in the interests of the public health that this part of the shire should have an efficient sanitary system.

IPSWICH.

Since the introduction of the nightsoil and rubbish removal systems at Ipswich on the 1st January, there is a marked improvement in the condition of the town, though in many instances there are accumulations of rubbish remaining from bygone years.

A case of plague occurred here in June, and large numbers of plague-infected rats have been found. The Commissioner of Public Health sent a gang of five men to destroy rats within the area in which the infected rats were caught. The Municipal Council have also been called upon to undertake a thorough cleansing of the whole of the municipality, and a gang of men have been appointed for this purpose and placed under the charge of a ganger from the Health Department. The work of cleansing is now in progress, and house-to-house inspections are being made, and, where necessary, a twenty-four hours' statutory notice served upon occupiers to clean up their premises.

The Municipal Council are co-operating with the Department in every way, and good work being accomplished.

The extension of the municipal boundaries to include the more thickly populated suburbs, so as to bring them under one sanitary contractor, would be advisable.

CAIRNS.

On account of an outbreak of plague reported by the Health Officer in the month of November last, an inspector of the Department was despatched to Cairns for the purpose of superintending the cleansing of the town and instructing a gang of men in rat-destruction and fumigation operations. The town was found to be in a very dirty condition. A systematic house-to-house inspection was carried out, every assistance being given by the officers of the Local Authority. A part of Malaytown, which the medical officer of health certified as being incapable of proper cleansing and disinfection, was destroyed by fire.

Three hundred and sixty loads of rubbish were removed from the two main blocks of the town, in addition to a large quantity destroyed by fire, but, owing to the inclemency of the weather, the cleansing was much delayed.

The wharves were found to be in a filthy condition, due in a great measure to the extensive export trade in bananas and to the want of a proper rubbish removal system.

During the inspector's stay in Cairns a large number of rats were destroyed.

MOUNT MORGAN.

A serious epidemic of scarlet fever occurred at Mount Morgan towards the end of the year. The accommodation at the general hospital proving insufficient, the matter was laid before the Commissioner of Public Health, who immediately despatched an officer from the Health Department in charge of a field

hospital, including tents, beds, clothing, &c., for the purpose of erecting additional accommodation for the housing of patients. Four hours after the information was received everything was on the way to its destination, and, without experiencing any delay in course of transit, the whole of the equipment was erected and filled with patients immediately they were placed in position. The question of the sanitary depôt for this municipality has now been satisfactorily settled.

MOUNT PERRY.

At the request of the Mayor and Aldermen, the Chief Inspector of the Department was instructed to make an inspection of this township, and to advise the Council on matters pertaining to their sanitary contract; as, also, to select a more suitable sanitary depôt than the one in use. Since the introduction of the sanitary contract much rubbish has been collected within the town and disposed of by burial in trenches at the depôt. With proper attention, in a very short time the sanitary circumstances of this town will be greatly improved.

TOOWOOMBA.

Owing to the presence of an outbreak of enteric fever in Toowoomba and district, at the request of the Mayor, the Department assisted the Council in organising a cleansing gang. Every dwelling-house, right-of-way, and business premises within the municipality were inspected, and, where necessary, thoroughly cleansed. Over 600 loads of rubbish were removed and disposed of.

The Council have recently extended their sanitary service, and a number of cesspits abolished. A system of garbage collection should also be extended to the area exempt from the sanitary service.

TOWNSVILLE.

Towards the end of September, Inspector Milne received instructions to proceed to Townsville for the purpose of plague-prevention work, and to report upon the shipping regulations then in force. Unfortunately, this officer suddenly expired on board the s.s. "Barcoo" a few hours before the vessel reached port. He was replaced by Inspector Munro, who, for a period of over three months, supervised the carrying out of these regulations, and directed the operations of the rat gang, under the local Medical Officer of Health.

The defective sewers and drainage reported on by myself in 1902, and subsequently by Dr. O'Brien in 1903, were reported by Inspector Munro to be still in the same state. Dr. O'Brien again visited Townsville in the early part of the year, and found that nothing had been done. Since his report, the Council have been mulcted in heavy damages in a lawsuit brought against the Local Authority by owners of properties.

The rubbish removal system inaugurated in 1903 has resulted in a marked improvement in the sanitary condition of the town, but the method of collection and removal leaves much to be desired.

The Council still continue to water the streets and roads of the city with water drawn from Ross Creek, near the mouth of a sewer.

DALBY.

Eleven visits of inspection have been made to different parts of the State beyond the Metropolitan Area; in some of these places, owing to the apathy shown by the Local Authorities, filth of every description is accumulating. In some cases, as at Dalby, cesspits are in close proximity to wells, the water of which is used for domestic purposes. These cesspits, together with the general insanitary conditions in which several of these districts were found, may be the cause of the recurring epidemics of typhoid fever during the summer months.

The Municipality of Dalby have been called upon to abolish their cesspits; an order by the Commissioner compelling the abatement of this nuisance is to be served on the Local Authority.

I have, &c.,

JOHN SIMPSON, Ass. San. Inst. Gt. Brit., Chief Inspector.

The Commissioner of Public Health, Brisbane.

APPENDIX B.

RETURN SHOWING PARTICULARS OF ALL SPECIMENS EXAMINED AT THE BACTERIOLOGICAL INSTITUTE
DURING THE YEAR 1903 (JANUARY-DECEMBER).

Disease.	Nature of Specimen.							Number Examined.	Positive.	Negative.
Tuberculosis	Sputum							317	135	182
	Urine							3	1	2
	Fæces							1	...	1
	Pus							2	1	1
	Milk							10	...	10
	Pus							3	1	2
	Mucus							1	...	1
	Pleuro virus							6	...	6
	Lungs from sheep							1	...	1
								344	138	206
Typhoid fever	Blood							805	399	406
	Water							23	1	22
								828	400	428
Plague	Lymph, human							47	20	27
	Pus „							4	...	4
	Sputum „							1	...	1
	Viscera „							12	4	8
	Rats							14,444	88	14,356
	Mice							168	3	165
	Cats							4	...	4
								14,680	115	14,565
Diphtheria	Throat swabbing							25	8	17
	Nasal discharge							1	...	1
								26	8	18
Gonorrhœa	Urethral discharge							28	11	17
Leprosy	Lymph, &c.							19	10	9
Pneumonia	Pus							1	...	1
Pathological tissues	Viscera							2	2	...
	Human							109	...	...
	Animal							5	...	...
								114	...	...
Malaria	Blood							1	...	1
Filaria	Blood							3	1	2
Hydatid	Chest fluid							1	...	1
Meningitis	Fluid—lumbar region							1	...	1
Abscess	Pus for streptococci							1	1	...
Animal parasites	Ankylostoma duodenale							5	...	5
	Tapeworm							1	...	1
	Acari							1	1	...
	Intestinal worms							1	...	1
	Ixodes ricinus							6	6	...
	Argas miniatus							1	1	...
	Boophilus annulatus							2	2	...
	Spiroptera megastoma							1	1	...
								18	11	7
	Sheep							1	...	1
	Calf							1	1	...
Anthrax	Bovine							30	25	5
Symptomatic anthrax	Pig							1	...	1
Tick fever	Fowl							1	...	1
Swine fever	Fowl							1	...	1
Fowl enteritis	Human urine							5	...	...
Chicken cholera	„ milk							1	...	...
Miscellaneous	„ viscera							2	...	...
	„ blood							1	...	...
	„ pus							1	...	...
	„ cerebro-spinal fluid							1	...	...
	Poison plant							1	...	...
	Yeast							3	...	...
	Ptomaine poisoning							2	...	...
	Blood, bovine							2	...	...
	Water examinations							37	...	...
	Plague material for experiments							10	...	...
	Antiseptic fluid							1	...	...
								102	...	...
Total number of specimens examined								16,169	...	...

I have, &c.,

C. J. POUND,

Government Bacteriologist.

The Commissioner of Public Health, Brisbane.

APPENDIX C.

Treasury Buildings,
Brisbane, 13th July, 1904.

SIR,—I have the honour to submit the following Report of Queensland dairy inspection for the year ending 30th June, 1904.

Dairies in the following districts have been inspected, viz.:—

Balmoral, Beenleigh, Belmont, Brassall, Brisbane North, Brisbane South, Bundamba, Cleveland, Coomera, Coorparoo, Enoggera, Esk, Goolman, Hamilton, Indooroopilly, Ipswich, Ithaca, Kedron, Mutdapilly, Nerang, Normanby, Pine, Purga, Rosewood, Sandgate, Sherwood, Stephens, Tambourine, Tarampa, Taringa, Tingalpa, Toombul, Toowong, Walloon, Waterford, Windsor, Wynnum, and Yeerongpilly.

Altogether 2,999 dairies have been inspected, and 4,871 visits of inspection made.

The sanitary condition of the majority of these dairies could be considerably improved by structural alterations. At present, under our instructions, temporary improvements are constantly being carried out in order that the premises may be maintained in as clean a condition as possible. To insure these temporary improvements successive inspections have, of course, to be made.

As you are aware, our staff has been considerably reduced, owing to the transfer of Mr. Cory, M.R.C.V.S., in January last, to the Department of Agriculture; also to Mr. Stewart's absence from the State; consequently, in the outside districts, dairies are not seen as frequently as is desirable.

The health of the cows has been good, and, owing to the season, the animals are generally looking well and in good condition.

Thirty-one thousand one hundred and forty-four cows have been inspected; this includes monthly inspection of cows in and around Brisbane and Ipswich. Any suspicious cows have been reported to Mr. Cory for further examination; 23 cows were stopped temporarily from being milked for public use, and 25 condemned as being unfit for dairy purposes, from the following causes, viz.:—

Malignant growths	...	...	...	...	...	...	...	...	...	7
Diseased mammary and lymphatic glands	...	...	...	...	...	...	...	...	...	16
Actinomycosis	...	...	...	...	...	...	...	...	...	1
Emaciation	...	...	...	...	...	...	...	...	...	1

Complete satisfaction as regards the sanitary condition of dairies and dealing with diseased animals will not, however, in my opinion, be obtained until a comprehensive Dairy Act is passed.

I have, &c.,

C. C. PICKERING, Dairy Inspector.

The Commissioner of Public Health, Brisbane.

APPENDIX D.

Government Chemical Laboratory,
Brisbane, 5th March, 1904.

SIR,—I have the honour to submit the following Report of work done by me as State Analyst during the year 1903 in accordance with the last clause of Section 31 of the Health Act:—

The only samples received by me under the provisions of the Health Act were those submitted by your officers, and which have already been reported to you.

The following is a summary of the work:—

Sample.						Proof Spirit.	Remarks.
Rum	...	...	...	...	...	72.1	Adulterated with water.
Wine	...	...	...	...	...	32.0	Mostly fermented sugar and water. Total fine, £25 17s. 10d.
"	...	...	...	...	...	21.9	Sugar, water, and artificial colouring. Total fine, £25 17s. 10d.
						26.0	
"	...	...	...	...	...	30.1	Mostly sugar and water.
						31.0	
"	...	...	...	...	...	25.0	Mostly sugar and water. Total fine, £25 17s. 10d.
						25.0	
"	...	...	...	...	...	25.0	Very objectionable beery odour.
						23.5	
"	...	...	...	...	...	23.5	Adulterated with sugar and water.
						27.6	
"	...	...	...	...	...	30.0	"
						34.6	
"	...	...	...	...	...	17.3	Contains added sugar, water, and spirit.
Cider	...	...	...	...	...	Nil.	Entirely artificial. Total fine, £15 17s.
Whisky	...	...	...	...	...	70.94	Entirely fictitious. Total fine, £15 17s.
Liquid	...	...	...	...	...	Nil.	5.4 per cent. added water. Total fine, £5 6s. 6d.
Liquor	...	...	...	...	...	91.10	Wood tar and water.
"	...	...	...	...	...	99.60	Fit for consumption.

NOTE.—Those bracketed together are from the same owner.

No fees were received for the analysis of any of the samples.

I have, &c.,

J. BROWNLIE HENDERSON,

Government Analyst.

The Commissioner of Public Health, Brisbane.

APPENDIX E.
CITY OF BRISBANE.

"The Health Act of 1900."

ANNUAL REPORT OF THE COUNCIL OF THE CITY OF BRISBANE RELATING TO PUBLIC HEALTH AND SANITARY MATTERS WITHIN THE CITY AREA FOR THE YEAR ENDING THE 31ST DECEMBER, 1903.

1. Estimated population—37,148.

2. Infectious diseases—

Name of Disease.	Number of Cases Reported.
Scarlet Fever	53
Typhoid Fever and Continued Fever	94
Diphtheria and Membranous Croup	33
Phthisis (deaths)	23
Membranous Croup	See Diphtheria
Erysipelas	8

6. Prevention of infectious diseases—

(a) Number of cases in which special pail service (typhoid fever) was provided—57.

(b) Number of premises disinfected—

(a) By local authority

(b) By Department of Public Health

(c) By householders and certified by medical practitioners

(d) Number of premises examined for sanitary defects—211.

(e) Milk supplies examined—15.

} All by Department of Public Health,
as per arrangement.

7. Buildings—

(a) Number of dwelling-houses inspected { Dwelling-houses only—6,427.
Other premises—1,998.
Total inspections—42,155.

(b) Number of notices served requiring improvements—Included under "Nuisances" and "Drainage."

(c) Number of disinfections carried out—Included under "Infectious Diseases Prevention."

(d) Number of demolitions carried out—Nil

8. Nuisances—

(a) Number investigated during the year } 4,976.

(b) Number of complaints received

(c) Number of notices to abate issued—4,976.

(d) Number abated—4,812.

(e) Number of prosecutions for failure to abate nuisances—13.

9. Cesspits—

(a) Number of cesspits in area—Nil.

(b) If any by-laws prohibiting—Prohibited so far as the Statute permits by Chapter 10.

(c) Number of cesspits filled up—Nil.

10. Sanitary service—

(a) Method of removal of excreta { Interchangeable sealed-pan service to all wards. Excreta disposed
of by deposit in the ocean at North Banks as regards East,
(b) Single or double pan service { West, North, Valley, and Kangaroo Point Wards. Buried at
(c) Site or dépôt { site in town of Windsor as regards Merthyr and Cintra Wards.

11. Drainage and sewerage—

Number of premises connected with the sewers { Premises newly drained—63.
during the year { Premises redrained—261.
New buildings drained—104.
Drains trapped and repaired—353.
New sewers, 50½ chains.

12. Garbage and rubbish—

Number of services—One to seven weekly.

13. Lodging-houses and houses let in lodgings—

(a) Number in area—Not known positively.

(b) Number registered—127.

(c) Number of complaints respecting infringement of the Act or by-law—Nil.

(d) Number of prosecutions—Nil.

(e) Number of convictions—Nil.

14. Food—

(a) Number of samples taken—42.

(b) Number of prosecutions by the Council—6.

(c) Number of convictions—5.

15. Infant life protection—

(a) Number of houses registered—26.

(b) Number of prosecutions—Nil.

(c) Number of convictions—Nil.

THOMAS REES, Mayor.

W. HENRY G. MARSHALL, Town Clerk.

10th May, 1904.

Report forwarded to Commissioner of Public Health, 14th May, 1904.

CITY OF SOUTH BRISBANE.

Council Chambers, 8th July, 1904.

SIR,—I have the honour to submit hereunder a Report in connection with my department for the half-year ending 30th June, 1904 :—

Particulars.										Number or Amount.
Premises inspected	...	...	...	...	...	...	...	...	...	10,814
Private drains connected to sewers	..	...	...	...	...	...	...	...	...	118
Defective drains repaired and trapped	...	...	...	...	...	...	...	...	...	69
Permits issued to open streets	...	...	...	...	...	...	...	...	...	136
Permits issued to blast	...	...	...	...	...	...	...	...	...	3
Permits issued to erect verandas	...	...	...	...	...	...	...	...	...	2
Dirty premises cleansed (yards, closets, and weeds)	...	...	...	...	...	...	...	...	...	1,241
Earth-closets raised and repaired	...	...	...	...	...	...	...	...	...	38
Earth-closets erected	...	...	...	...	...	...	...	...	...	22
Stone crossings constructed	...	...	...	...	...	...	...	...	...	45
Buildings renovated under provisions of "The Health Act of 1900"	...	...	...	...	...	...	...	...	...	16
Buildings pulled down	...	...	...	...	...	...	...	...	...	5
Receptacle for manure provided at stables	...	...	...	...	...	...	...	...	...	7
Defective tanks repaired	...	...	...	...	...	...	...	...	...	2
Concrete stand constructed and drains to milkseller's premises	...	...	...	...	...	...	...	...	...	1
Stagnant waterholes filled up	...	...	...	...	...	...	...	...	...	2
Notices issued to construct drains	...	...	...	...	...	...	...	...	...	91
" " repair and trap defective drains	...	...	...	...	...	...	...	...	...	61
" " clean up dirty yards	...	...	...	...	...	...	...	...	...	752
" " erect new closets	...	...	...	...	...	...	...	...	...	2
" " raise and repair closets	...	...	...	...	...	...	...	...	...	30
" " construct stone crossings	...	...	...	...	...	...	...	...	...	45
" " provide sawdust boxes in closets	...	...	...	...	...	...	...	...	...	27
" " renovate dilapidated buildings under the provisions of "The Health Act of 1900"	...	...	...	...	...	...	...	...	...	17
" " construct drain and concrete floor of closets	...	...	...	...	...	...	...	...	...	1
" " construct concrete stand and drain for butcher's premises	...	...	...	...	...	...	...	...	...	1
" " abate nuisances, stagnant waterholes abated	...	...	...	...	...	...	...	...	...	3
" " repair defective veranda and building	...	...	...	...	...	...	...	...	...	1
" " fill up old disused wells	...	...	...	...	...	...	...	...	...	2
" " clean up footpaths	...	...	...	...	...	...	...	...	...	2
" " construct drain and concrete stand for milkseller's premises	...	...	...	...	...	...	...	...	...	1
" " shopkeepers re cleansing of footpaths and removal of refuse	...	...	...	...	...	...	...	...	...	408
" " cut and clear weeds	...	...	...	...	...	...	...	...	...	489
										£ s. d.
Drainage accounts collected	...	...	...	...	...	...	...	...	...	527 4 11
Weed accounts collected	...	...	...	...	...	...	...	...	...	27 15 3
Stone crossing accounts collected	...	...	...	...	...	...	...	...	...	54 1 3

Infectious Diseases.

Disease.										Cases.
Diphtheria	...	...	...	...	...	...	...	...	...	14
Erysipelas	...	...	...	...	...	...	...	...	...	6
Puerperal	...	...	...	...	...	...	...	...	...	1
Phthisis	...	...	...	...	...	...	...	...	...	7
Plague	...	...	...	...	...	...	...	...	...	1
Scarlet Fever	...	...	...	...	...	...	...	...	...	12
Typhoid Fever	...	...	...	...	...	...	...	...	...	53

I have, &c.,

CHAS. W. COPELAND.
City Inspector.

His Worship the Mayor, South Brisbane.

Price 7d.]

By Authority: GEORGE ARTHUR VAUGHAN, Government Printer, William street, Brisbane.

